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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/728,529

12/05/2003

Tomoyuki Funaki

YAMA:060

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EXAMINER

HUR, ECE

ART UNIT

PAPER NUMBER

2175

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/728,529	<b>Applicant(s)</b> FUNAKI, TOMOYUKI	
	<b>Examiner</b> ECE HUR	<b>Art Unit</b> 2175	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/04/2008, 12/06/2007 and 04/09/2004</u> .                   | 6) <input type="checkbox"/> Other: _____                          |



## **DETAILED ACTION**

This action is responsive to Response/Arguments filed on June 9, 2008.

### ***Status of Claims***

Claims 1-10 are pending in the case. Claims 1, 6, 9 and 10 are independent claims.

### ***Response to Arguments***

Applicant's arguments filed June 9, 2008 have been fully considered but they are not persuasive. See rejection details. Applicant argued:

1) Regarding Applicant's argument about the term controller is a generic expression for a programmed CPU or processor. In this respect, applicant submits that the term "controller" does not introduce new matter. Applicant's argument is persuasive.

2) Regarding Claims 1-10, rejection under 35 U.S.C. 112, first paragraph is withdraw because applicant's argument about controller is persuasive.

3) Regarding Claims 1-8, rejection under 35 U.S.C. 101 is withdrawn applicant's argument about controller is persuasive.

4) Regarding applicant's argument about applicant submits that Matsumoto simply would not have disclosed or taught controlling the display in a particular manner set forth in independent claims 1, 6, 9, and 10. However, Matsumoto discloses in FIG.

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1, CPU that serves as controller. Applicant has not provided specific reasoning why Matsumoto does not teach the claimed aspect.

5) Regarding applicant's argument about the pending independent Claims each call for apportioning the measures for each of the staff tiers so that each of the measures is positioned only on a single staff tier and not spanning across multiple staff tiers. However, Matsumoto discloses in FIG. 6, wherein auxiliary display area when the supplementary display is necessary, and a display device that is provided for displaying the extracted musical score data in the main display area and concurrently displaying the extracted musical information in the auxiliary display area. (Matsumoto, Paragraph 0005). Specifically, DP3 illustrates auxiliary display are on the same single staff tier for each part. (Matsumoto, Paragraph 0040).

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsumoto (20010023633).

Regarding Claim 1, Matsumoto discloses an apparatus for arranging music score displaying data for displaying a music score on a given music score display area in one or more staff tiers, each tier containing one or more measures of variable lengths as justified for the display area, said apparatus comprising:

an input device which inputs data representing a music performance in a plurality of measures of music progression (see paragraph 0005 for example); and

a controller (server computer 20 which would inherently have a controller for example) comprising:

a musical score notational element determining device which determines music score notational elements necessary for displaying a music score for each of said measures based on said music performance representing data (see paragraph 0005 for example);

a display size determining device which determines display sizes of said music score notational elements to be displayed on said display area (see paragraphs 0006 and 0008 for example);

a horizontal length determining device which determines a horizontal length of the music score to be displayed on said display area (see paragraphs 0006 and 0008 for example);

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a measure apportioning device which calculates, for each of said measures based on said determined display sizes, a minimum horizontal length for placing in the measure at least one kind of said music score notational elements without an overlap in a horizontal direction among said music score notational elements as determined to be displayed for each of said measures, and apportions said measures for each of said staff tiers based on said calculated minimum horizontal length of each of said measures and said determined horizontal length of the music score to be displayed such that the music score notational elements of each of said measures are placed on the apportioned staff tier in a length of at least said minimum horizontal length while each of said measures is positioned only on a single staff tier and not spanning across multiple staff tiers (see paragraphs 0004 and 0006 and figure 7 for example); and

a music score display data output device which outputs music score display data for displaying said music score notational elements on said staff tiers according to the apportionment of the measures by said measure apportioning device (see paragraph 0005 for example).

Regarding Claim 2, Matsumoto discloses an apparatus, wherein said music score notational elements are notes (see paragraph 0006 and figure 7 for example).

Regarding Claim 3, Matsumoto discloses an apparatus, wherein said display size determining device includes controls to be operated by a user for determining the display sizes of said music score notational elements (see paragraph 0008 for example).

Regarding Claim 4, Matsumoto discloses an apparatus, wherein the music score is to be displayed in tiers of musical staves on a page or pages, each page having said music score display area (see paragraph 009 for example), and wherein said controller further comprises: a vertical length determining device which determines a vertical length of the music score to be displayed on said display area (see paragraph 0006 and 0008 for example); and a staff tiers apportioning device which calculates, for each of said staff tiers based on said determined display sizes, a maximum vertical length for placing all the music score notational elements in the measures apportioned for the staff tier by said measures apportioning device, and apportions said staff tiers for said page based on said calculated maximum vertical length of each of said staff tiers and said determined vertical length of the music score to be displayed such that a number of staff tiers shall be placed within said music score display area on the page (see paragraph 0006 and 0008 for example), wherein said music score display data output device outputs music score display data for displaying the music score for the page by placing the music score notational elements in the staff tiers for which the measures are apportioned by said measure apportioning device according to the apportionment of the staff tiers as



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apportioned by said staff tiers apportioning device (see paragraph 0005 for example).

Regarding Claim 5, Matsumoto discloses an apparatus, wherein said staff tiers apportioning device calculates said maximum vertical length by calculating the highest position of a notational element and the lowest position of a notational element among said notational elements to be placed in each of said staff tiers (see paragraph 0006 and 0008 for example).

Regarding Claim 6, Matsumoto discloses an apparatus for arranging music score displaying data for displaying a music score having measures of music progression on a display device, said apparatus comprising: an input device which inputs data representing a music performance in a plurality of measures of music progression (see paragraph 0005 for example); and

a controller comprising (server computer 20 for example):

a display size determining device which determines display sizes of music score notational elements with respect to the measures to be displayed on said display device based on said music performance representing data (see paragraph 0006 and 0008 for example);

a measure length calculating device which calculates, for each of said measures based on said determined display sizes of the music score notational elements, a

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horizontal length of the measure for placing in the measure at least one kind of said music score notational elements without an overlap in a horizontal direction among said music score notational elements (see paragraph 0006 and 0008 for example);

a measure apportioning device which apportions the measures for each of said staff tiers so that each of the measures is positioned only on a single staff tier and not spanning across multiple staff tiers (see figures 6 and 7 for example); and

a music score display data output device which outputs music score display data for displaying said music score notational elements in said measures according to said determined display sizes of the music score notational elements and said calculated horizontal lengths of the measures (0005 for example).

Regarding Claim 7, Matsumoto discloses an apparatus, wherein the measure apportioning device adjusts said music score display data such that a music score is displayed in a plurality of staff tiers on said display device on a page-by-page basis, and apportions said music score notational elements to be placed in a uniform distribution through the staff tier with respect to the music progression (see paragraph 0009 and figure 5 for example).

Regarding Claim 8, Matsumoto discloses an apparatus, wherein said music score notational elements are notes (see paragraph 0006 and figure 7 for example).

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Re claim 9, Matsumoto discloses a computer-readable storage medium storing a computer program for arranging music score displaying data for displaying a music score on a given music score display area in one or more staff tiers, each tier containing one or more measures of variable lengths as justified for the display area, the computer program containing instructions for:

inputting data representing a music performance in a plurality of measures of music progression (see paragraph 0005 for example);

determining music score notational elements necessary for displaying a music score for each of said measures based on said music performance representing data (see paragraph 0005 for example);

determining display sizes of said music score notational elements to be displayed on said display area (see paragraph 0006 and 0008 for example);

determining a horizontal length of the music score to be displayed on said display area (see paragraph 0006 and 0008 for example);

calculating, for each of said measures based on said determined display sizes, a minimum horizontal length for placing in the measure at least one kind of said music score notational elements without an overlap in a horizontal direction among said music score notational elements as determined to be displayed for each of said measures,

apportioning said measures for each of said staff tiers based on said calculated minimum horizontal length of each of said measures and said determined horizontal

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length of the music score to be displayed such that the music score notational elements of each of said measures are placed on the apportioned staff tier in a length of at least said minimum horizontal length while each of the measures is positioned only on a single staff tier and not spanning across multiple staff tiers (see paragraph 0006 and 0008 and figure 7 for example); and

outputting music score display data for displaying said music score notational elements on said staff tiers according to the apportionment of the measures (see paragraph 0005 for example).

Regarding Claim 10, Matsumoto discloses a computer-readable storage medium storing a computer program for arranging music score displaying data for displaying a music score having measures of music progression on a display device, the computer program containing instructions for:

inputting data representing a music performance in a plurality of measures of music progression (see paragraph 0005 for example);

determining display sizes of music score notational elements with respect to the measures to be displayed on said display device based on said music performance representing data (see paragraph 0005 for example);

calculating, for each of said measures based on said determined display sizes of the music score notational elements, a horizontal length of the measure for placing in the measure at least one kind of said music score notational elements without an

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overlap in a horizontal direction among said music score notational elements (see paragraph 0006 and 0008 for example);

apportioning the measures for each of said staff tiers so that each of the measures is positioned only on a single staff tier and not spanning across multiple staff tiers (see figures 6 and 7 for example); and

outputting music score display data for displaying said music score notational elements in said measures according to said determined display sizes of the music score notational elements and said calculated horizontal lengths of the measures (see paragraph 0005 for example).

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Johnson et al., US 5,962,800, 10/05/1999, "Scale-based music notation system".

2) Aoki et al., US 20010045154, 11/29/2001, "Apparatus and method for generating auxiliary melody on the basis of main melody".

3) Hiratsuka, US 6,545,208, 04/08/2003, "Apparatus and method for controlling display of music score".

4) Varne, US 20040074376, 04/22/2004, "System for playing music having multi-colored musical notation and instruments".

5) Hiratsuka, US 20040069115, 04/15/2004, "Storage medium containing musical score displaying data, musical score display apparatus and musical score displaying program".

6) Suzuki et al., US 20040094017, 05/20/2004, "Method and apparatus for editing performance data with modification of icons of musical symbols".

7) Funaki, US 20060065100, 03/30/2006, "Apparatus for displaying musical information without overlap".

8) Wedel, US 7,030,307, 04/18/2006, "Music Teaching Device and Method".

9) Bittner et al., US 7,119,266, 10/10/2006, "Electronic music display appliance and method for displaying music scores".

10) Funaki, US 7,220,909, 05/22/2007, "Apparatus for displaying musical information without overlap".

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ECE HUR whose telephone number is (571) 270-1972. The examiner can normally be reached on Mon-Thurs 7:30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM BASHORE can be reached on 571-272-4088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

August 30, 2008

Ece Hur  
E.H. /e.h.

/Kieu D Vu/

Primary Examiner, Art Unit 2175

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